

Attorney Docket
14017.0008

In the claims:

Claims 1-35 (cancelled).

36. (NEW) A computer controlled video processing device comprising:
a central processing unit;
a communications processor coupled to at least one source of video and audio signals and coupled to said central processing unit;
a communication bus coupled to said communications processor;
at least one video buffer coupled to said communication bus;
at least one audio buffer coupled to said communication bus;
at least one mass storage device having random access capabilities being coupled to said communications processor; and
wherein said video processing device is configured such that video and audio signals are stored on said mass storage device and further such that video and audio signals that are stored on said mass storage device are supplied to a video display and audio playback unit and wherein said video and audio signals are capable of being supplied independently of the storage of another of said video and audio signals to said mass storage device based upon controls from said communications processor.

37. (NEW) The apparatus of claim 36, wherein said stored video and audio signal is supplied to said video display and audio playback unit at a time removed from said storage of said video and audio signal.

38. (NEW) Multimedia recording and playback apparatus, comprising:
a central processing unit controlling apparatus mode of operation;
an input interface to accept an incoming stream of an individual multimedia presentation;
an output interface to deliver an outgoing stream of an individual multimedia presentation to a multimedia playback device;
a communications bus for routing of the incoming and outgoing streams;
a storage device; and

Attorney Docket
14017.0008

a communications processor coupled (a) to the communications bus, (b) to the storage device, and (c) to the central processing unit;

the communications processor causing the incoming stream to be routed to the storage device for recording and causing a recorded stream of an individual multimedia presentation to be extracted from the storage device and routed as the outgoing stream, and

the communications processor further being capable of extracting the recorded stream from the storage device for routing to the output interface during routing of the incoming stream of the same individual multimedia presentation to the storage device for recording.

39. (NEW) The apparatus of claim 38, wherein the recorded multimedia stream is extracted from the storage device at a time removed from the recording of the recorded multimedia stream.

40. (NEW) The apparatus of claim 38, wherein any of the individual multimedia presentations comprises audio and video.

41. (NEW) The apparatus of claim 38, wherein the communications processor comprises a reduced instruction set computing (RISC) processor.

42. (NEW) The apparatus of claim 38, wherein the central processing unit comprises a general-purpose microprocessor.

43. (NEW) The apparatus of claim 38, wherein the storage device comprises a disk storage medium.

44. (NEW) The apparatus of claim 38, wherein the output interface implements a discrete cosine transform video decoding of the recorded stream for delivery to the multimedia playback device.

45. (NEW) The apparatus of claim 38, wherein the output interface provides signals for a television playback device.

Attorney Docket
14017.0008

46. (NEW) The apparatus of claim 38, wherein the input interface accepts the incoming stream in a digital form.

47. (NEW) The apparatus of claim 38, wherein the communications processor comprises logic circuitry implemented in an integrated circuit package.

48. (NEW) The apparatus of claim 38, wherein the output interface comprises a decoder performing a decompression algorithm based on a discrete cosine transform and motion estimation.

49. (NEW) Multimedia recording apparatus, comprising:
an input interface to accept a multimedia stream of an individual multimedia presentation;
an output interface to deliver a multimedia stream of an individual multimedia presentation to a multimedia playback device;
a first bus coupled to the input interface;
a second bus coupled to the output interface;
a storage device;
a program memory; and
processor circuitry coupled to the first bus, the second bus, and to the program memory;
the processor circuitry controlling apparatus mode of operation, causing the multimedia stream accepted at the input interface to be routed to the storage device for recording and causing the multimedia stream extracted from the storage device to be routed to the output interface for playback, and
the processor circuitry further being capable of extracting a recorded multimedia stream from the storage device for routing to the output interface during routing of a different multimedia stream to the storage device for recording.

50. (NEW) The apparatus of claim 49, wherein a stream of an individual multimedia presentation comprises audio and video.

Attorney Docket
14017.0008

51. (NEW) The apparatus of claim 49, wherein the processor circuitry comprises a general-purpose microprocessor.

52. (NEW) The apparatus of claim 49, wherein the storage device comprises a disk storage medium.

53. (NEW) The apparatus of claim 49, wherein the input interface accepts a stream of an individual multimedia presentation in a digital form.

54. (NEW) Multimedia recording and playback apparatus, comprising:
a central processing unit controlling apparatus mode of operation;
an input interface to accept an incoming multimedia stream of an individual multimedia presentation;

an output interface to deliver an outgoing multimedia stream of an individual multimedia presentation to a multimedia playback device;

a communications bus coupled to the input interface and to the output interface to establish a data path for routing of incoming and outgoing multimedia streams;

a storage device; and

a co-processor in the data path for routing multimedia streams, the co-processor causing the incoming multimedia stream to be routed to the storage device for recording and causing a multimedia stream extracted from the storage device to be routed to the output interface, and the co-processor further being capable of extracting the multimedia stream from the storage device for routing to the output interface during routing of a different multimedia stream to the storage device for recording.

55. (NEW) Multimedia recording and playback apparatus, comprising:
means for establishing a data path for a received multimedia stream of an individual multimedia presentation and for establishing a data path for the multimedia stream for playback;
means for storing the multimedia stream; and

Attorney Docker
14017.0008

means in the data path for the multimedia stream for routing the multimedia stream to the storing means for recording, and for extracting the multimedia stream from the storing means for playback;

the multimedia stream routing and extracting means further being capable of extracting the multimedia stream from the storing means for playback during routing of a different multimedia stream to the storing means for recording.

56. (NEW) The apparatus of claim 55, wherein the multimedia stream routing and extracting means is disposed in the data path between an input interface and an output interface.

57. (NEW) The apparatus of claim 55, wherein the multimedia stream routing and extracting means comprises a logic circuit.

58. (NEW) The apparatus of claim 55, wherein the multimedia stream routing and extracting means comprises a central processing unit and a program memory.

59. (NEW) The apparatus of claim 55, wherein the storing means comprises a disk storage medium.

60. (NEW) The apparatus of claim 55, wherein the storing means comprises a random access disk storage medium.

61. (NEW) Multimedia recording and playback apparatus, comprising:
a central processing unit controlling apparatus mode of operation;
an input interface to accept a multimedia stream of an individual multimedia presentation;
an output interface to deliver a multimedia stream of an individual multimedia presentation to a multimedia playback device;
a communications bus coupled to the input interface and to the output interface to establish a data path for routing of the multimedia streams;
a storage device; and

Attorney Docket
14017.0008

a logic circuit coupled (a) to the communications bus for disposition in the data path routing multimedia streams, (b) to the storage device, and (c) to the central processing unit;

the logic circuit causing the multimedia stream accepted at the input interface to be routed to the storage device for recording and causing a recorded multimedia stream to be extracted from the storage device and routed to the output interface for playback, and

the logic circuit further being capable of extracting the recorded multimedia stream for routing to the output interface for playback during routing of a different multimedia stream to the storage device for recording.

62. (NEW) Multimedia recording and playback apparatus, comprising:

a central processing unit controlling apparatus mode of operation;

an input interface to accept a multimedia stream of an individual multimedia presentation;

an output interface to deliver a multimedia stream of an individual multimedia presentation to a multimedia playback device;

a communications bus coupled to the input interface and to the output interface to establish a data path for routing of multimedia streams;

a storage device; and

a communications processor coupled (a) to the communications bus for disposition in the data path for routing of the multimedia streams, (b) to the storage device, and (c) to the central processing unit;

the communications processor causing the multimedia stream accepted at the input interface to be routed to the storage device for recording, and

the communications processor further being capable of extracting a recorded multimedia stream of an individual multimedia presentation from the storage device for routing to the output interface for playback.

63. (NEW) The apparatus of claim 62, wherein the recorded multimedia stream is extracted from the storage device at a time removed from the recording of the recorded multimedia stream.

Attorney Docket
14017.0008

64. (NEW) Multimedia recording apparatus, comprising:
an input interface to accept a multimedia stream of an individual multimedia presentation;
an output interface to deliver a multimedia stream of an individual multimedia presentation to a multimedia playback device;
a bus coupled to the input interface and to the output interface;
a storage device coupled to the bus;
a program memory coupled to the bus; and
processor circuitry coupled to the bus;
the processor circuitry controlling apparatus mode of operation and causing the multimedia stream accepted at the input interface to be routed to the storage device for recording, and
the processor circuitry being capable of extracting a recorded multimedia stream of an individual multimedia presentation from the storage device for routing to the output interface for playback.

65. (NEW) The apparatus of claim 64, wherein the recorded multimedia stream is extracted from the storage device at a time removed from the recording of the recorded multimedia stream.

66. (NEW) The apparatus of claim 65, wherein the processor circuitry is further capable of extracting the multimedia stream during routing of a different multimedia stream of the same individual multimedia presentation to the storage device for recording.

67. (NEW) The apparatus of claim 64, wherein the multimedia stream storage device comprises a disk storage medium.

68. (NEW) The apparatus of claim 64, wherein the input interface accepts the multimedia stream in a digital form.

69. (NEW) Multimedia recording and playback apparatus, comprising:

Attorney Docket
14017.0008

means for establishing a data path for (1) a received multimedia stream of an individual multimedia presentation and for (2) a multimedia stream of an individual multimedia presentation being delivered for playback;

means for storing a multimedia stream of an individual multimedia presentation; and

means for routing the stored multimedia stream for recording;

the multimedia stream routing means further being capable of extracting the stored multimedia stream from the storing means for playback.

70. (NEW) The apparatus of claim 69, wherein the multimedia stream routing means is disposed in the data path between an input interface and an output interface.

71. (NEW) The apparatus of claim 69, wherein the multimedia stream routing means comprises a logic circuit.

72. (NEW) The apparatus of claim 69, wherein the multimedia stream routing means comprises a central processing unit and a program memory.

73. (NEW) The apparatus of claim 69, wherein the storing means comprises a disk storage medium.

74. (NEW) The apparatus of claim 69, wherein the storing means comprises a random access disk storage medium.

75. (NEW) A process for storage and playback of an individual multimedia presentation, comprising the steps of:

accepting a multimedia stream of an individual multimedia presentation;

routing the accepted multimedia stream to a storage device for recording; and

extracting the recorded multimedia stream from the storage device for delivery to a multimedia playback device while a different multimedia stream is being routed to the storage device for recording.